

FIGURE 1

Figure 1: pMS Phage Display Vector. Pro = Lac Z promoter. L1 = Omp A leader. L2 = Pel B leader. Light = light chain. Heavy = heavy chain.

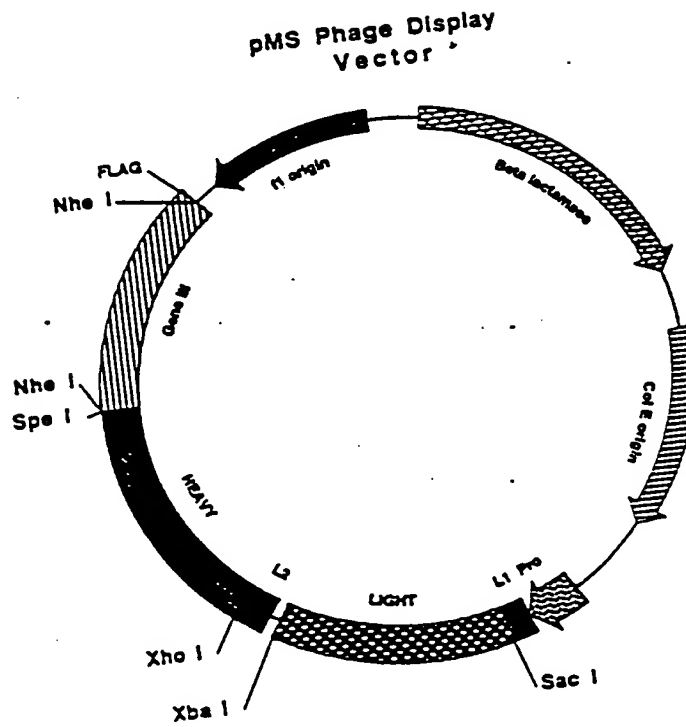
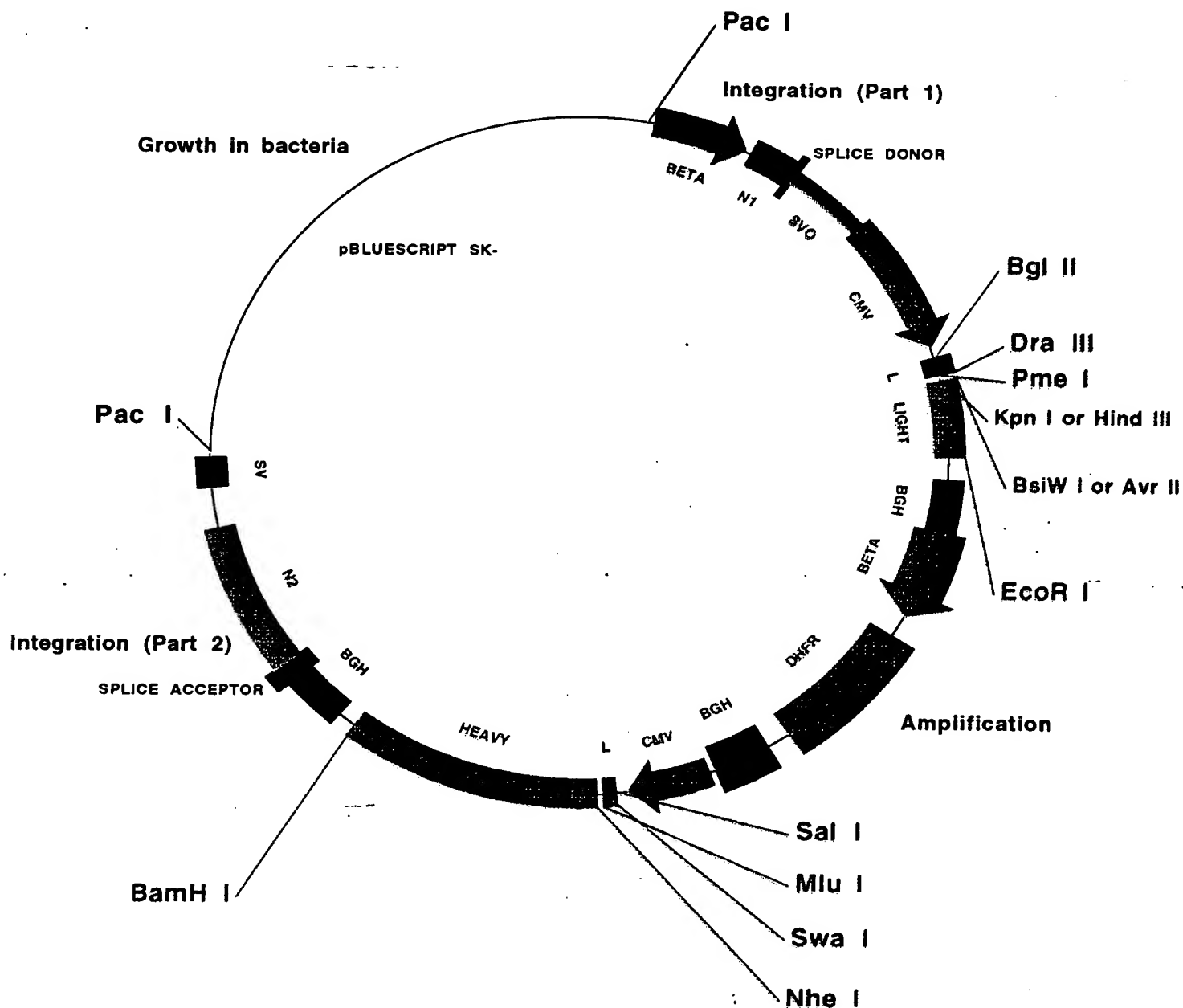


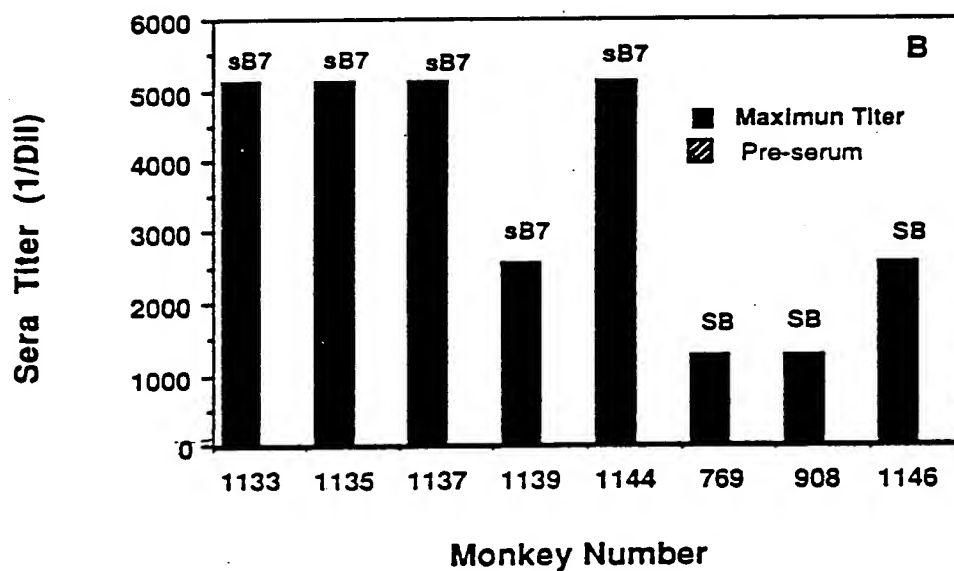
FIGURE 2

NEOSPLA



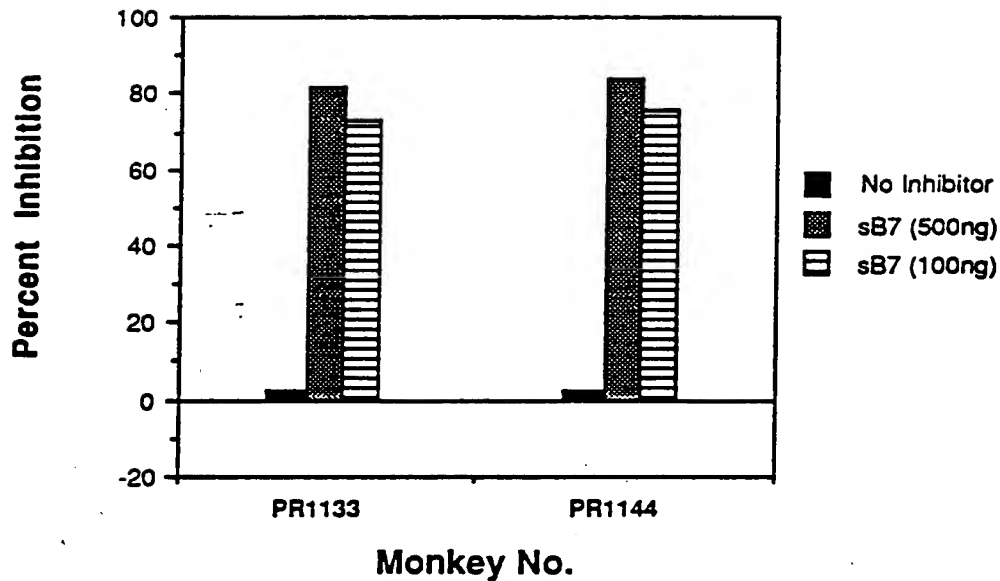
- CMV = Cytomegalovirus promoter/enhancer
- BETA = Mouse Beta globin major promoter
- SVO = SV40 origin
- BGH = Bovine growth hormone polyadenylation
- SV = SV40 polyadenylation
- N1 = Neomycin phosphotransferase exon 1
- N2 = Neomycin phosphotransferase exon 2
- LIGHT = Human immunoglobulin kappa or lambda constant region
- DHFR = Dihydrofolate Reductase
- HEAVY = Human immunoglobulin gamma 1 or gamma 4 PE constant region
- L = Leader

FIGURE 3



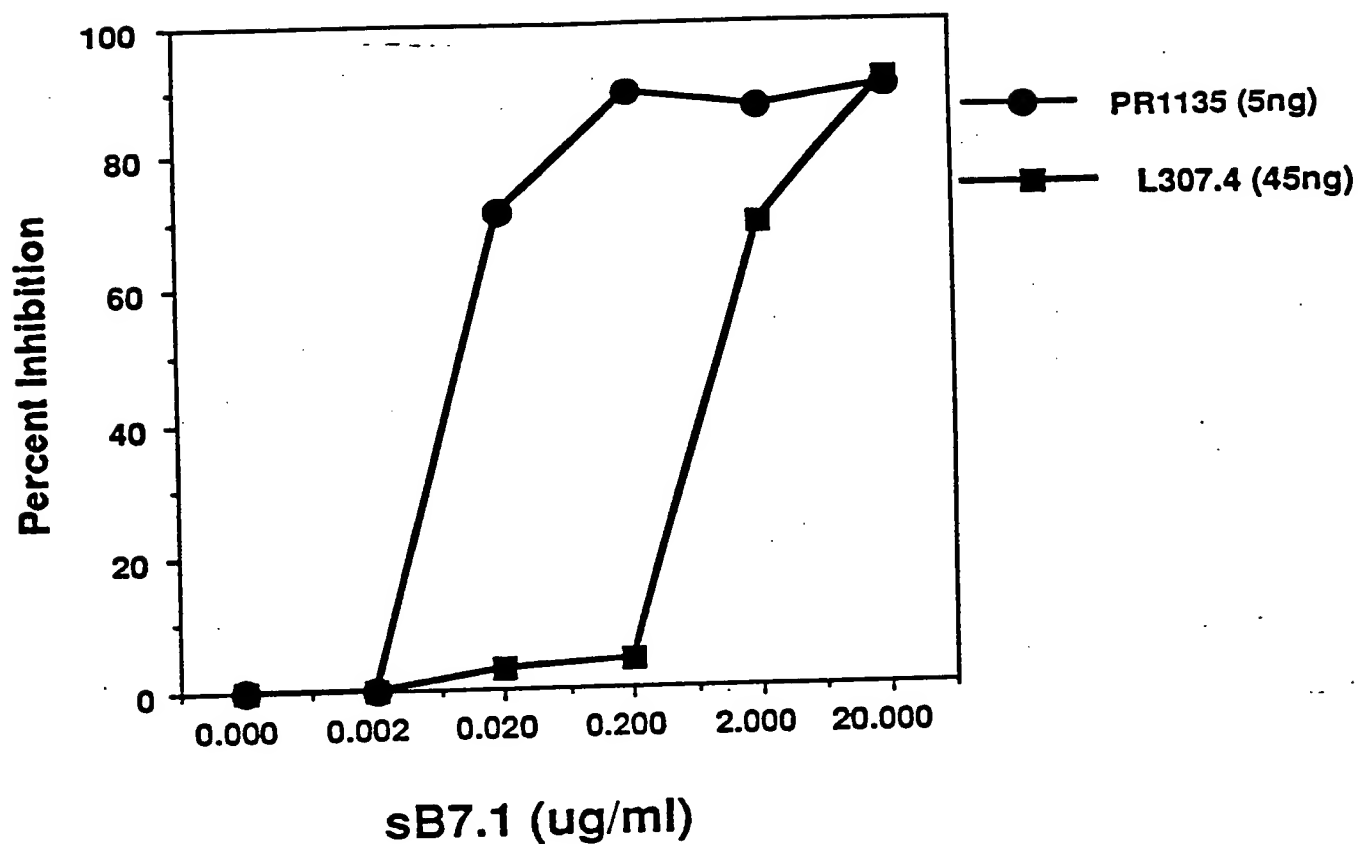
Monkey Serum Anti-B7.1 Titers Directed Against Cell Surface B7.1 on Transfected CHO Cells. Monkeys 1133-1139 were immunized with sB7.1. Monkeys 769-1146 were immunized with 50 million human B7 positive SB cells.

FIGURE 4



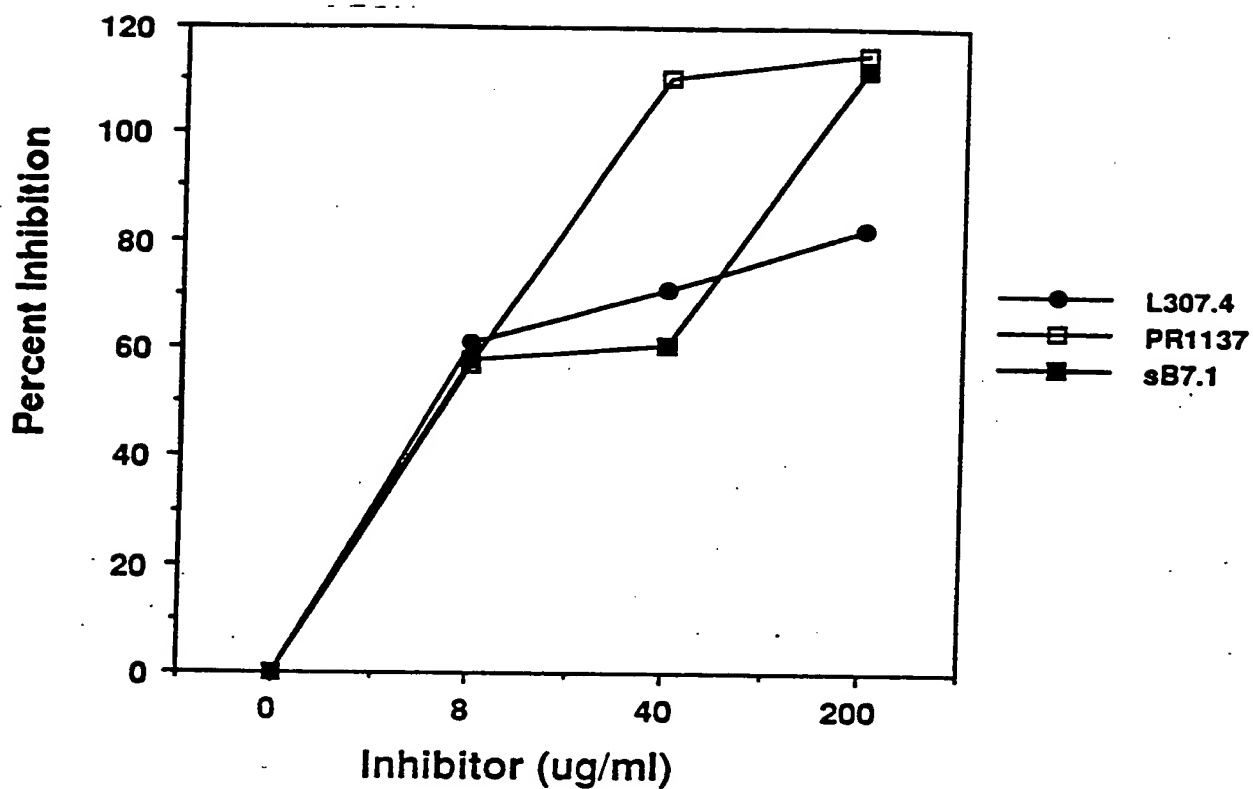
Inhibition of Radiolabeled sB7.1 Binding by sB7.1 Affinity-purified
Monkey Antibodies in Presence of Unlabeled sB7 and MAb L307.4
Murine Anti-B7.1

FIGURE 5



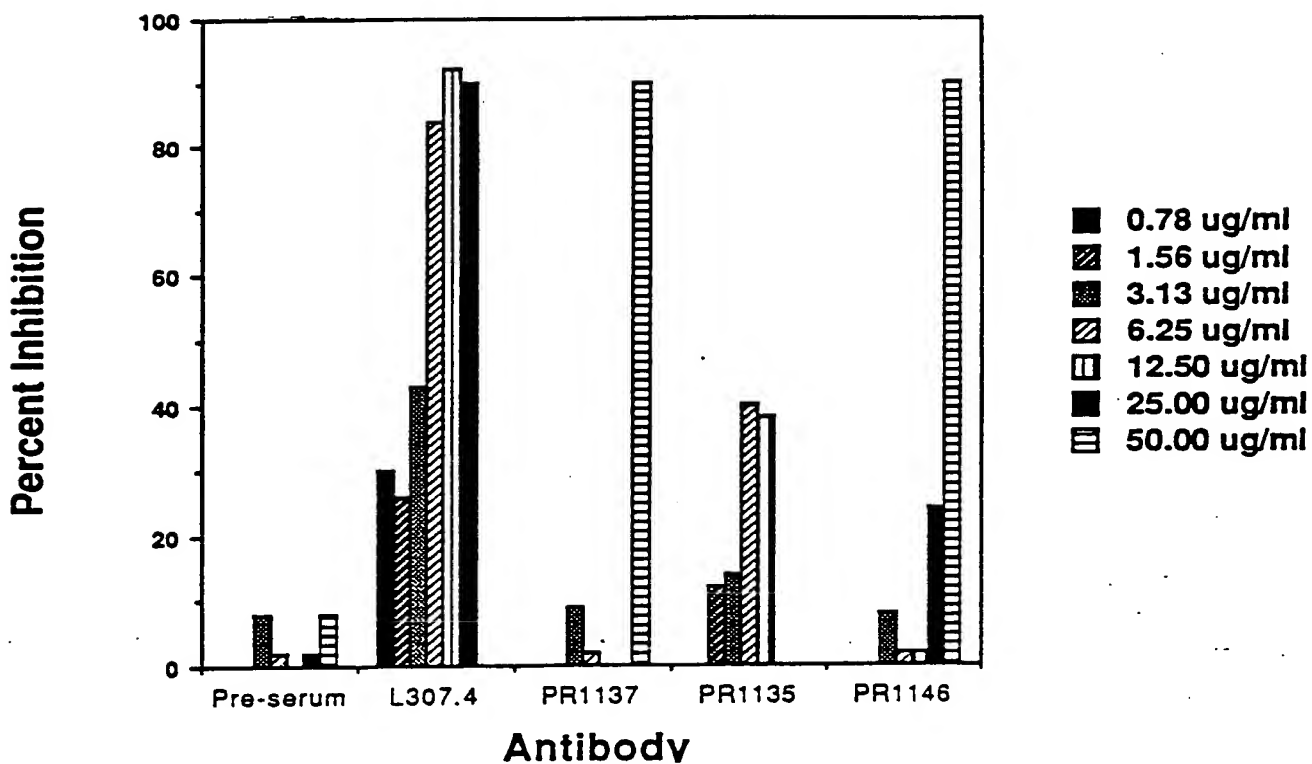
Inhibition of Binding of Radiolabeled Monkey 1135 and L307.4 Anti-B7.1 Antibodies to B7 Positive Human SB Cells by Competition With Affinity-Purified sB7.1.

FIGURE 6



Inhibition of Radiolabeled B7-Ig Binding to Activated Human Peripheral Blood T Cells by Competing With Unlabeled sB7.1 Murine Anti-B7.1 (L307.4) and Monkey 1127 Affinity-purified Serum Antibodies.

FIGURE 7



Inhibition of IL-2 Production in Mixed Lymphocyte Cultures by Anti-B7.1 Affinity-purified Monkey Serum Antibodies. Assays at some concentrations for certain monkeys were not done, due to limiting amounts of purified antibody.

FIGURE 8a

Length of 7C10 light/Primatized: 705 bp; Listed from: 1 to: 705;
Translated from: 1 to: 703 (Entire region);
Genetic Code used: Universal; Fri, May 26, 1995 11:11 AM

Frame 1 M R V P A _ Q L L G L L L L W L P G A R
ATG AGG GTC CCC GCT CAG CTC CTG GGG CTC CTG CTC TGG CTC CCA GGT GCA CGA
9 18 27 36 45 54

C A Y E L T Q P P S V S V S P G Q T A R I
TGT GCC TAT GAA CTG ACT CAG CCA CCC TCG GTG TCA GTG TCC CCA GGA CAG ACG GCC AGG ATC
63 72 81 90 99 108 117

T C G G D N S R N E Y V H W Y Q Q K P A R
ACC TGT GGG GGA GAC AAC AGT AGA AAT GAA TAT GTC CAC TGG TAC CAG CAG AAG CCA GCG CGG
126 135 144 153 162 171 180

A P I L V I Y D D S D R P S G I P E R F S
GCC CCT ATA CTG GTC ATC TAT GAT GAT AGT GAC CGG CCC TCA GGG ATC CCT GAG CGA TTC TCT
189 198 207 216 225 234 243

G S K S G N T A T L T I N G V E A G D E A
GGC TCC AAA TCA GGG AAC ACC GCC ACC CTG ACC ATC AAC GGG GTC GAG GCC GGG GAT GAG GCT
252 261 270 279 288 297 306

D Y Y C Q V W D R A S D H P V F G G G T R
GAC TAT TAC TGT CAG GTG TGG GAC AGG GCT AGT GAT CAT CCG GTC TTC GGA GGA GGG ACC CGG
315 324 333 342 351 360 369

V T V L G Q P K A A P S V T L F P P S S E
GTG ACC GTC CTA GGT CAG CCC AAG GCT GCC CCC TCG GTC ACT CTG TTC CCG CCC TCC TCT GAG
378 387 396 405 414 423 432

E L Q A N K A T L V C L I S D F Y P G A V
GAG CTT CAA GCC AAC AAG GCC ACA CTG GTG TGT CTC ATA AGT GAC TTC TAC CCG GGA GCC GTG
441 450 459 468 477 486 495

T V A W K A D S S P V K A G V E T T T P S
ACA GTG GCC TGG AAG GCA GAT AGC AGC CCC GTC AAG GCG GGA GTG GAG ACC ACC ACA CCC TCC
504 513 522 531 540 549 558

K Q S N N K Y A A S S Y L S L T P E Q W K
AAA CAA AGC AAC AAC AAG TAC GCG GCC AGC AGC TAC CTG AGC CTG ACG CCT GAG CAG TGG AAG
567 576 585 594 603 612 621

S H R S Y S C Q V T H E G S T V E K T V A
TCC CAC AGA AGC TAC AGC TGC CAG GTC ACG CAT GAA GGG AGC ACC GTG GAG AAG ACA GTG GCC
630 639 648 657 666 675 684

P T E C S
CCT ACA GAA TGT TCA TGA
693 702

FIGURE 8b

Length of 7C10 heavy/Primatized: 1431 bp; Listed from: 1 to: 1431;
Translated from: 1 to: 1429 (Entire region);
Genetic Code used: Universal; Fri, May 26, 1995 11:11 AM

Frame 1 M K H L W F F L L L V A A P R W V L S
ATG AAA CAC CTG TGG TTC TTC CTC CTC GTG GCA GCT CCC AGA TGG GTC CTG TCC
9 18 27 36 45 54

Q V K L Q Q W G E G L L Q P S E T L S R T
CAG GTG AAG CTG CAG CAG TGG GGC GAA GGA CTT CTG CAG CCT TCG GAG ACC CTG TCC CGC ACC
63 72 81 90 99 108 117

C V V S G G S I S G Y Y Y W T W I R Q T P
TGC GTT GTC TCT GGT GGC TCC ATC AGC GGT TAC TAC TAC TGG ACC TGG ATC CGC CAG ACC CCA
126 135 144 153 162 171 180

G R G L E W I G H I Y G N G A T T N Y N P
GGG AGG GGA CTG GAG TGG ATT GGC CAT ATT TAT GGT AAT GGT GCG ACC ACC AAC TAC AAT CCC
189 198 207 216 225 234 243

S L K S R V T I S K D T S K N Q F F L N L
TCC CTC AAG AGT CGA GTC ACC ATT TCA AAA GAC ACG TCC AAG AAC CAG TTC TTC CTG AAC TTG
252 261 270 279 288 297 306

N S V T D A D T A V Y Y C A R G P R P D C
AAT TCT GTG ACC GAC GCG GAC ACG GCC GTC TAT TAC TGT GCG AGA GGC CCT CGC CCT GAT TGC
315 324 333 342 351 360 369

T T I C Y G G W V D V W G P G D L V T V S
ACA ACC ATT TGT TAT GGC GGC TGG GTC GAT GTC TGG GGC CCG GGA GAC CTG GTC ACC GTC TCC
378 387 396 405 414 423 432

S A S T K G P S V F P L A P S S K S T S G
TCA GCT AGC ACC AAG GGC CCA TCG GTC TTC CCC CTG GCA CCC TCC TCC AAG AGC ACC TCT GGG
441 450 459 468 477 486 495

G T A A L G C L V K D Y F P E P V T V S W
GGC ACA GCG GCC CTG GGC TGC CTG GTC AAG GAC TAC TTC CCC GAA CCG V GTG ACG GTG TCG TGG
504 513 522 531 540 549 558

N S G A L T S G V H T F P A V L Q S S G L
AAC TCA GGC GCC CTG ACC AGC GGC GTG CAC ACC TTC CCG GCT GTC CTA CAG TCC TCA GGA CTC
567 576 585 594 603 612 621

Y S L S S V V T V P S S S L G T Q T Y I C
TAC TCC CTC AGC AGC GTG GTG ACC GTG CCC TCC AGC AGC TTG GGC ACC CAG ACC TAC ATC TGC
630 639 648 657 666 675 684

N V N H K P S N T K V D K K A E P K S C D
AAC GTG AAT CAC AAG CCC AGC AAC ACC AAG GTG GAC AAG AAA GCA GAG CCC AAA TCT TGT GAC
693 702 711 720 729 738 747

K T H T C P P C P A P E L L G G P S V F L
AAA ACT CAC ACA TGC CCA CCG TGC CCA GCA CCT GAA CTC CTG GGG GGA CCG TCA GTC TTC CTC
756 765 774 783 792 801 810

F P P K P K D T L M I S R T P E V T C V V
TTC CCC CCA AAA CCC AAG GAC ACC CTC ATG ATC TCC CGG ACC CCT GAG GTC ACA TGC GTG GTG
819 828 837 846 855 864 873

V D V S H E D P E V K F N W Y V D G V E V
GTG GAC GTG AGC CAC GAA GAC CCT GAG GTC AAG TTC AAC TGG TAC GTG GAC GGC GTG GAG GTG
882 891 900 909 918 927 936

FIGURE 8b (Continued)

H	N	A	K	T	K	P	R	E	E	Q	Y	N	S	T	Y	R	V	V	S	V
CAT	AAT	GCC	AAG	ACA	AAG	CCG	CGG	GAG	GAG	CAG	TAC	AAC	AGC	ACG	TAC	CGT	GTG	GTC	AGC	GTC
945				954			963			972			981			990			999	
L	T	V	L	H	Q	D	W	L	N	G	K	E	Y	K	C	K	V	S	N	K
CTC	ACC	GTC	CTG	CAC	CAG	GAC	TGG	CTG	AAT	GGC	AAG	GAG	TAC	AAG	TGC	AAG	GTC	TCC	AAC	AAA
1008				1017			1026			1035			1044			1053			1062	
A	L	P	A	P	I	E	K	T	I	S	K	A	K	G	Q	P	R	E	P	Q
GCC	CTC	CCA	GCC	CCC	ATC	GAG	AAA	ACC	ATC	TCC	AAA	GCC	AAA	GGG	CAG	CCC	CGA	GAA	CCA	CAG
1071				1080			1089			1098			1107			1116			1125	
V	Y	T	L	P	P	S	R	D	E	L	T	K	N	Q	V	S	L	T	C	L
GTG	TAC	ACC	CTG	CCC	CCA	TCC	CGG	GAT	GAG	CTG	ACC	AAG	AAC	CAG	GTC	AGC	CTG	ACC	TGC	CTG
1134				1143			1152			1161			1170			1179			1188	
V	K	G	F	Y	P	S	D	I	A	V	E	W	E	S	N	G	Q	P	E	N
GTC	AAA	GGC	TTC	TAT	CCC	AGC	GAC	ATC	GCC	GTG	GAG	TGG	GAG	AGC	AAT	GGG	CAG	CCG	GAG	AAC
1197				1206			1215			1224			1233			1242			1251	
N	Y	K	T	T	P	P	V	L	D	S	D	G	S	F	F	L	Y	S	K	L
AAC	TAC	AAG	ACC	ACG	CCT	CCC	GTG	CTG	GAC	TCC	GAC	GGC	TCC	TTC	TTC	CTC	TAC	AGC	AAG	CTC
1260				1269			1278			1287			1296			1305			1314	
T	V	D	K	S	R	W	Q	Q	G	N	V	F	S	C	S	V	M	H	E	A
ACC	GTG	GAC	AAG	AGC	AGG	TGG	CAG	CAG	GGG	AAC	GTC	TTC	TCA	TGC	TCC	GTG	ATG	CAT	GAG	GCT
1323				1332			1341			1350			1359			1368			1377	
L	H	N	H	Y	T	Q	K	S	L	S	L	S	P	G	K					
CTG	CAC	AAC	CAC	TAC	ACG	CAG	AAG	AGC	CTC	TCC	CTG	TCT	CCG	GGT	AAA	TGA				
1386				1395			1404			1413			1422			1431				

Length of 7B6 light/Primatized: 720 bp; Listed from: 1 to: 720;
Translated from: 1 to: 718 (Entire region);
Genetic Code used: Universal; Fri, May 26, 1995 11:10 AM

Frame 1	M	S	L	P	A	Q	L	L	G	L	L	L	C	V	P	G	S	S		
	ATG	AGC	CTC	CCT	GCT	CAG	CTC	CTC	GGG	CTG	CTA	TTG	CTC	TGC	GTC	CCC	GGG	TCC	AGT	
G	E	V	V	M	T	Q	S	P	L	S	L	P	I	T	P	G	E	P	A	S
GGG	GAA	GTT	GTG	ATG	ACT	CAG	TCT	CCA	CTG	TCC	CTT	CCC	ATC	ACA	CCT	GGA	GAG	CCG	GCC	TCC
	63			72			81			90			99			108			117	
I	S	C	R	S	S	Q	S	L	K	H	S	N	G	D	T	F	L	S	W	Y
ATC	TCC	TGT	AGG	TCT	AGT	CAA	AGC	CTT	AAA	CAC	AGT	AAT	GGA	GAC	ACC	TTC	CTG	AGT	TGG	TAT
	126			135			144			153			162			171			180	
Q	Q	K	P	G	Q	P	P	R	L	L	I	Y	K	V	S	N	R	D	S	G
CAG	CAG	AAG	CCA	GGC	CAA	CCT	CCA	AGG	CTC	CTG	ATT	TAT	AAG	GTT	TCT	AAC	CGG	GAC	TCT	GGG
	189			198			207			216			225			234			243	
V	P	D	R	F	S	G	S	G	A	G	T	D	F	T	L	K	I	S	A	V
GTC	CCA	GAC	AGA	TTC	AGC	GGC	AGT	GGG	GCA	GGG	ACA	GAT	TTC	ACA	CTG	AAA	ATC	AGC	GCA	GTG
	252			261			270			279			288			297			306	
E	A	E	D	V	G	V	Y	F	C	G	Q	G	T	R	T	P	P	T	F	G
GAG	GCT	GAA	GAT	GTT	GGG	GTT	TAT	TTC	TGC	GGG	CAA	GGT	ACA	AGG	ACT	CCT	CCC	ACT	TTC	GGC
	315			324			333			342			351			360			369	
G	G	T	K	V	E	I	K	R	T	V	A	A	P	S	V	F	I	F	P	P
GGA	GGG	ACC	AAG	GTG	GAA	ATC	AAA	CGT	ACG	GTG	GCT	GCA	CCA	TCT	GTC	TTC	ATC	TTC	CCG	CCA
	378			387			396			405			414			423			432	
S	D	E	Q	L	K	S	G	T	A	S	V	V	C	L	L	N	N	F	Y	P
TCT	GAT	GAG	CAG	TTG	AAA	TCT	GGA	ACT	GCC	TCT	GTT	GTG	TGC	CTG	CTG	AAT	AAC	TTC	TAT	CCC
	441			450			459			468			477			486			495	
R	E	A	K	V	Q	W	K	V	D	N	A	L	Q	S	G	N	S	Q	E	S
AGA	GAG	GCC	AAA	GTA	CAG	TGG	AAG	GTG	GAT	AAC	GCC	CTC	CAA	TCG	GGT	AAC	TCC	CAG	GAG	AGT
	504			513			522			531			540			549			558	
V	T	E	Q	D	S	K	D	S	T	Y	S	L	S	S	T	L	T	L	S	K
GTC	ACA	GAG	CAG	GAC	AGC	AAG	GAC	AGC	ACC	TAC	AGC	CTC	AGC	AGC	ACC	CTG	ACG	CTG	AGC	AAA
	567			576			585			594			603			612			621	
A	D	Y	E	K	H	K	V	Y	A	C	E	V	T	H	Q	G	L	S	S	P
GCA	GAC	TAC	GAG	AAA	CAC	AAA	GTC	TAC	GCC	TGC	GAA	GTC	ACC	CAT	CAG	GGC	CTG	AGC	TCG	CCC
	630			639			648			657			666			675			684	
V	T	K	S	F	N	R	G	E	C											

FIGURE 9b

Length of 7B6 heavy/Primatized: 1437 bp; Listed from: 1 to: 1437;
Translated from: 1 to: 1435 (Entire region);
Genetic Code used: Universal; Fri, May 26, 1995 11:09 AM

Frame 1

M	G	W	S	L	I	L	L	F	L	V	A	V	A	T	R	V	Q	C
ATG	GGT	TGG	AGC	CTC	ATC	TTG	CTC	TTC	CTT	GTC	GCT	GTT	GCT	ACG	CGT	GTC	CAG	TGT
		9				18					27			36			45	54
E	V	Q	L	V	E	S	G	G	G	L	V	Q	P	G	G	S	L	R
GAG	GTG	CAA	CTG	GTG	GAG	TCT	GGG	GGA	GGC	TTG	GTC	CAG	CCT	GGC	GGG	TCC	CTG	AGA
	63			72			81			90			99			108		117
C	A	V	S	G	F	T	F	S	D	H	Y	M	Y	W	F	R	Q	A
TGT	GCA	GTC	TCT	GGA	TTC	ACC	TTC	AGT	GAC	CAC	TAC	ATG	TAT	TGG	TTC	CGC	CAG	GCT
	126			135			144			153			162			171		180
K	G	P	E	W	V	G	F	I	R	N	K	P	N	G	G	T	T	E
AAG	GGG	CCG	GAA	TGG	GTA	GGT	TTC	ATT	AGA	AAC	AAA	CCG	AAC	GGT	GGG	ACA	ACA	GAA
	189			198			207			216			225			234		243
A	S	V	K	D	R	F	T	I	S	R	D	D	S	K	S	I	A	Y
GCG	TCT	GTG	AAA	GAC	AGA	TTC	ACC	ATC	TCC	AGA	GAT	GAT	TCC	AAA	AGC	ATC	GCC	TAT
	252			261			270			279			288			297		306
M	S	S	L	K	I	E	D	T	A	V	Y	Y	C	T	T	S	Y	I
ATG	AGC	AGC	CTG	AAA	ATC	GAG	GAC	ACG	GCC	GTC	TAT	TAC	TGT	ACT	ACA	TCC	TAC	ATT
	315			324			333			342			351			360		369
C	R	G	G	V	C	Y	G	G	Y	F	E	F	W	G	Q	G	A	L
TGT	CGG	GGT	GGT	GTC	TGC	TAT	GGA	GGT	TAC	TTC	GAA	TTC	TGG	GGC	CAG	GGC	GCC	CTG
	378			387			396			405			414			423		432
V	S	S	A	S	T	K	G	P	S	V	F	P	L	A	P	S	S	K
GTC	TCC	TCA	GCT	AGC	ACC	AAG	GGC	CCA	TCG	GTC	TTC	CCC	CTG	GCA	CCC	TCC	TCC	AAG
	441			450			459			468			477			486		495
S	G	G	T	A	A	L	G	C	L	V	K	D	Y	F	P	E	P	V
TCT	GGG	GGC	ACA	GCG	GCC	CTG	GGC	TGC	CTG	GTC	AAG	GAC	TAC	TTC	CCC	GAA	CCG	GTG
	504			513			522			531			540			549		558
S	W	N	S	G	A	L	T	S	G	V	H	T	F	P	A	V	L	Q
TCG	TGG	AAC	TCA	GGC	GCC	CTG	ACC	AGC	GGC	GTG	CAC	ACC	TTC	CCG	GCT	GTC	CTA	CAG
	567			576			585			594			603			612		621
G	L	Y	S	L	S	S	V	V	T	V	P	S	S	S	L	G	T	Q
GGA	CTC	TAC	TCC	CTC	AGC	AGC	GTG	GTG	ACC	GTG	CCC	TCC	AGC	AGC	TTG	GGC	ACC	CAG
	630			639			648			657			666			675		684
I	C	N	V	N	H	K	P	S	N	T	K	V	D	K	K	A	E	P
ATC	TGC	AAC	GTG	AAT	CAC	AAG	CCC	AGC	AAC	ACC	AAG	GTG	GAC	AAG	AAA	GCA	GAG	CCC
	693			702			711			720			729			738		747
C	D	K	T	H	T	C	P	P	C	P	A	P	E	L	L	G	G	P
TGT	GAC	AAA	ACT	CAC	ACA	TGC	CCA	CCG	TGC	CCA	GCA	CCT	GAA	CTC	CTG	GGG	GGA	CCG
	756			765			774			783			792			801		810
F	L	F	P	P	K	P	K	D	T	L	M	I	S	R	T	P	E	V
TTC	CTC	TTC	CCC	CCA	AAA	CCC	AAG	GAC	ACC	CTC	ATG	ATC	TCC	CGG	ACC	CCT	GAG	GTC
	819			828			837			846			855			864		873
V	V	V	D	V	S	H	E	D	P	E	V	K	F	N	W	Y	V	D
GTG	GTG	GTG	GAC	GTG	AGC	CAC	GAA	GAC	CCT	GAG	GTC	AAG	TTC	AAC	TGG	TAC	GTG	GAC
	882			891			900			909			918			927		936

FIGURE 9b (Continued)

E	V	H	N	A	K	T	K	P	R	E	E	Q	Y	N	S	T	Y	R	V	V
GAG	GTG	CAT	AAT	GCC	AAG	ACA	AAG	CCG	CGG	GAG	GAG	CAG	TAC	AAC	AGC	ACG	TAC	CGT	GTG	GTC
945				954			963			972			981			990			999	
S	V	L	T	V	L	H	Q	D	W	L	N	G	K	E	Y	K	C	K	V	S
AGC	GTC	CTC	ACC	GTC	CTG	CAC	CAG	GAC	TGG	CTG	AAT	GGC	AAG	GAG	TAC	AAG	TGC	AAG	GTC	TCC
1008				1017			1026			1035			1044			1053			1062	
N	K	A	L	P	A	P	I	E	K	T	I	S	K	A	K	G	Q	P	R	E
AAC	AAA	GCC	CTC	CCA	GCC	CCC	ATC	GAG	AAA	ACC	ATC	TCC	AAA	GCC	AAA	GGG	CAG	CCC	CGA	GAA
1071				1080			1089			1098			1107			1116			1125	
P	Q	V	Y	T	L	P	P	S	R	D	E	L	T	K	N	Q	V	S	L	T
CCA	CAG	GTG	TAC	ACC	CTG	CCC	CCA	TCC	CGG	GAT	GAG	CTG	ACC	AAG	AAC	CAG	GTC	AGC	CTG	ACC
1134				1143			1152			1161			1170			1179			1188	
C	L	V	K	G	F	Y	P	S	D	I	A	V	E	W	E	S	N	G	Q	P
TGC	CTG	GTC	AAA	GGC	TTC	TAT	CCC	AGC	GAC	ATC	GCC	GTG	GAG	TGG	GAG	AGC	AAT	GGG	CAG	CCG
1197				1206			1215			1224			1233			1242			1251	
E	N	N	Y	K	T	T	P	P	V	L	D	S	D	G	S	F	F	L	Y	S
GAG	AAC	AAC	TAC	AAG	ACC	ACG	CCT	CCC	GTG	CTG	GAC	TCC	GAC	GGC	TCC	TTC	TTC	CTC	TAC	AGC
1260				1269			1278			1287			1296			1305			1314	
K	L	T	V	D	K	S	R	W	Q	Q	G	N	V	F	S	C	S	V	M	H
AAG	CTC	ACC	GTG	GAC	AAG	AGC	AGG	TGG	CAG	CAG	GGG	AAC	GTC	TTC	TCA	TGC	TCC	GTG	ATG	CAT
1323				1332			1341			1350			1359			1368			1377	
E	A	L	H	N	H	Y	T	Q	K	S	L	S	L	S	P	G	K			
GAG	GCT	CTG	CAC	AAC	CAC	TAC	ACG	CAG	AAG	AGC	CTC	TCC	CTG	TCT	CCG	GGT	AAA	TGA		
1386				1395			1404			1413			1422			1431				

FIGURE 10a

Length of 16C10 Lambda/Primatized : 711 bp;
Listed from: 1 to: 711;
Translated from: 1 to: 709 (Entire region);
Genetic Code used: Universal; Fri, May 26, 1995 11:08 AM

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Frame 1  M  R  V  P  A  Q  L  L  G  L  L  L  L  W  L  P  G  A  R
          ATG AGG GTC CCC GCT CAG CTC CTG GGG CTC CTG CTG CTC TGG CTC CCA GGT GCA CGA
              9              18              27              36              45              54

C  E  S  V  L  T  Q  P  P  S  V  S  G  A  P  G  Q  K  V  T  I
TGT GAG TCT GTC CTG ACA CAG CCG CCC TCA GTG TCT GGG GCC CCA GGG CAG AAG GTC ACC ATC
    63              72              81              90              99              108              117

S  C  T  G  S  T  S  N  I  G  G  Y  D  L  H  W  Y  Q  Q  L  P
TCG TGC ACT GGG AGC ACC TCC AAC ATT GGA GGT TAT GAT CTA CAT TGG TAC CAG CAG CTC CCA
    126              135              144              153              162              171              180

G  T  A  P  K  L  L  I  Y  D  I  N  K  R  P  S  G  I  S  D  R
GGA ACG GCC CCC AAA CTC CTC ATC TAT GAC ATT AAC AAG CGA CCC TCA GGA ATT TCT GAC CGA
    189              198              207              216              225              234              243

F  S  G  S  K  S  G  T  A  A  S  L  A  I  T  G  L  Q  T  E  D
TTC TCT GGC TCC AAG TCT GGT ACC GCG GCC TCC CTG GCC ATC ACT GGG CTC CAG ACT GAG GAT
    252              261              270              279              288              297              306

E  A  D  Y  Y  C  Q  S  Y  D  S  S  L  N  A  Q  V  F  G  G  G
GAG GCT GAT TAT TAC TGC CAG TCC TAT GAC AGC AGC CTG AAT GCT CAG GTA TTC GGA GGA GGG
    315              324              333              342              351              360              369

T  R  L  T  V  L  G  Q  P  K  A  A  P  S  V  T  L  F  P  P  S
ACC CGG CTG ACC GTC CTA GGT CAG CCC AAG GCT GCC CCC TCG GTC ACT CTG TTC CCG CCC TCC
    378              387              396              405              414              423              432

S  E  E  L  Q  A  N  K  A  T  L  V  C  L  I  S  D  F  Y  P  G
TCT GAG GAG CTT CAA GCC AAC AAG GCC ACA CTG GTG TGT CTC ATA AGT GAC TTC TAC CCG GGA
    441              450              459              468              477              486              495

A  V  T  V  A  W  K  A  D  S  S  P  V  K  A  G  V  E  T  T  T
GCC GTG ACA GTG GCC TGG AAG GCA GAT AGC AGC CCC GTC AAG GCG GGA GTG GAG ACC ACC ACA
    504              513              522              531              540              549              558

P  S  K  Q  S  N  N  K  Y  A  A  S  S  Y  L  S  L  T  P  E  Q
CCC TCC AAA CAA AGC AAC AAC AAG TAC GCG GCC AGC AGC TAC CTG AGC CTG ACG CCT GAG CAG
    567              576              585              594              603              612              621

W  K  S  H  R  S  Y  S  C  Q  V  T  H  E  G  S  T  V  E  K  T
TGG AAG TCC CAC AGA AGC TAC AGC TGC CAG GTC ACG CAT GAA GGG AGC ACC GTG GAG AAG ACA
    630              639              648              657              666              675              684

V  A  P  T  E  C  S
GTG GCC CCT ACA GAA TGT TCA TGA
    693              702              711

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FIGURE 10b

Length of 16C10 heavy/primatized: 1431 bp;
Listed from: 1 to: 1431;
Translated from: 1 to: 1429 (Entire region);
Genetic Code used: Universal; Fri, May 26, 1995 11:08 AM

Frame 1 M K H L W F F L L L V A A P R W V L S
ATG AAA CAC CTG TGG TTC TTC CTC CTC CTG GTG GCA GCT CCC AGA TGG GTC CTG TCC
9 18 27 36 45 54

Q V Q L Q E S G P G L V K P S E T L S L T
CAG GTG CAG CTG CAG GAG TCG GGC CCA GGA CTG GTG AAG CCT TCG GAG ACC CTG TCC CTC ACC
63 72 81 90 99 108 117

C A V S G G S I S G G Y G W G W I R Q P P
TGC GCT GTC TCT GGT GGC TCC ATC AGC GGT GGT TAT GGC TGG GGC TGG ATC CGC CAG CCC CCA
126 135 144 153 162 171 180

G K G L E W I G S F Y S S S G N T Y Y N P
GGG AAG GGG CTG GAG TGG ATT GGG AGT TTC TAT AGT AGT AGT GGG AAC ACC TAC TAC AAC CCC
189 198 207 216 225 234 243

S L K S Q V T I S T D T S K N Q F S L K L
TCC CTC AAG AGT CAA GTC ACC ATT TCA ACA GAC ACG TCC AAG AAC CAG TTC TCC CTG AAG CTG
252 261 270 279 288 297 306

N S M T A A D T A V Y Y C V R D R L F S V
AAC TCT ATG ACC GCC GCG GAC ACG GCC GTG TAT TAC TGT GTG AGA GAT CGT CTT TTT TCA GTT
315 324 333 342 351 360 369

V G M V Y N N W E D V W G P G V L V T V S
GTT GGA ATG GTT TAC AAC AAC TGG TTC GAT GTC TGG GGC CCG GGA GTC CTG GTC ACC GTC TCC
378 387 396 405 414 423 432

S A S T K G P S V F P L A P S S K S T S G
TCA GCT AGC ACC AAG GGC CCA TCG GTC TTC CCC CTG GCA CCC TCC TCC AAG AGC ACC TCT GGG
441 450 459 468 477 486 495

G T A A L G C L V K D Y F P E P V T V S W
GGC ACA GCG GCC CTG GGC TGC CTG GTC AAG GAC TAC TTC CCC GAA CCG GTG ACG GTG TCG TGG
504 513 522 531 540 549 558

N S G A L T S G V H T F P A V L Q S S G L
AAC TCA GGC GCC CTG ACC AGC GGC GTG CAC ACC TTC CCG GCT GTC CTA CAG TCC TCA GGA CTC
567 576 585 594 603 612 621

Y S L S S V V T V P S S S L G T Q T Y I C
TAC TCC CTC AGC AGC GTG GTG ACC GTG CCC TCC AGC AGC TTG GGC ACC CAG ACC TAC ATC TGC
630 639 648 657 666 675 684

N V N H K P S N T K V D K K A E P K S C D
AAC GTG AAT CAC AAG CCC AGC AAC ACC AAG GTG GAC AAG AAA GCA GAG CCC AAA TCT TGT GAC
693 702 711 720 729 738 747

K T H T C P P C P A P E L L G G P S V F L
AAA ACT CAC ACA TGC CCA CCG TGC CCA GCA CCT GAA CTC CTG GGG GGA CCG TCA GTC TTC CTC
756 765 774 783 792 801 810

F P P K P K D T L M I S R T P E V T C V V
TTC CCC CCA AAA CCC AAG GAC ACC CTC ATG ATC TCC CGG ACC CCT GAG GTC ACA TGC GTG GTG
819 828 837 846 855 864 873

V D V S H E D P E V K F N W Y V D G V E V
GTG GAC GTG AGC CAC GAA GAC CCT GAG GTC AAG TTC AAC TGG TAC GTG GAC GGC GTG GAG GTG

FIGURE 10b (Continued)

882	891	900	909	918	927	936
H N A K T K P R E E Q Y N S T Y R V V S V						
CAT AAT GCC AAG ACA AAG CCG CGG GAG GAG CAG TAC AAC AGC ACG TAC CGT GTG GTC AGC GTC						
945	954	963	972	981	990	999
L T V L H Q D W L N G K E Y K C K V S N K						
CTC ACC GTC CTG CAC CAG GAC TGG CTG AAT GGC AAG GAG TAC AAG TGC AAG GTC TCC AAC AAA						
1008	1017	1026	1035	1044	1053	1062
A L P A P I E K T I S K A K G Q P R E P Q						
GCC CTC CCA GCC CCC ATC GAG AAA ACC ATC TCC AAA GCC AAA GGG CAG CCC CGA GAA CCA CAG						
1071	1080	1089	1098	1107	1116	1125
V Y T L P P S R D E L T K N Q V S L T C L						
GTG TAC ACC CTG CCC CCA TCC CGG GAT GAG CTG ACC AAG AAC CAG GTC AGC CTG ACC TGC CTC						
1134	1143	1152	1161	1170	1179	1188
V K G F Y P S D I A V E W E S N G Q P E N						
GTG AAA GGC TTC TAT CCC AGC GAC ATC GCC GTG GAG TGG GAG AGC AAT GGG CAG CCG GAG AAC						
1197	1206	1215	1224	1233	1242	1251
N Y K T T P P V L D S D G S F F L Y S K L						
AAC TAC AAG ACC ACG CCT CCC GTG CTG GAC TCC GAC GGC TCC TTC TTC CTC TAC AGC AAG CTC						
1260	1269	1278	1287	1296	1305	1314
T V D K S R W Q Q G N V F S C S V M H E A						
ACC GTG GAC AAG AGC AGG TGG CAG CAG GGG AAC GTC TTC TCA TGC TCC GTG ATG CAT GAG GCT						
1323	1332	1341	1350	1359	1368	1377
L H N H Y T Q K S L S L S P G K						
CTG CAC AAC CAC TAC ACG CAG AAG AGC CTC TCC CTG TCT CCG GGT AAA TGA						
1386	1395	1404	1413	1422	1431	